

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Matt King

GENERAL INFORMATION:

|                            |                                             |
|----------------------------|---------------------------------------------|
| Name:                      | TVA Paradise Fossil Plant                   |
| Address:                   | 13246 State Route 176, Drakesboro, KY 42337 |
| Date application received: | December 11, 1996                           |
| SIC/Source description:    | 4911 Electric Services                      |
| EIS #:                     | 21-177-00006                                |
| Application log number:    | 50068                                       |
| Permit number:             | V-04-024                                    |

APPLICATION TYPE/PERMIT ACTIVITY:

|                                                      |                                                 |
|------------------------------------------------------|-------------------------------------------------|
| <input checked="" type="checkbox"/> Initial issuance | <input type="checkbox"/> General permit         |
| <input type="checkbox"/> Permit modification         | <input type="checkbox"/> Conditional major      |
| ___ Administrative                                   | <input checked="" type="checkbox"/> Title V     |
| ___ Minor                                            | <input type="checkbox"/> Synthetic minor        |
| ___ Significant                                      | <input checked="" type="checkbox"/> Operating   |
| <input type="checkbox"/> Permit renewal              | <input type="checkbox"/> Construction/operating |

COMPLIANCE SUMMARY:

|                                                                     |                                                       |
|---------------------------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> Source is out of compliance                | <input type="checkbox"/> Compliance schedule included |
| <input checked="" type="checkbox"/> Compliance certification signed |                                                       |

APPLICABLE REQUIREMENTS LIST:

|                                                |                                                                                                 |                                         |
|------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------|
| <input type="checkbox"/> NSR                   | <input checked="" type="checkbox"/> NSPS                                                        | <input checked="" type="checkbox"/> SIP |
| <input type="checkbox"/> PSD                   | <input type="checkbox"/> NESHAPS                                                                | <input type="checkbox"/> Other          |
| <input type="checkbox"/> Netted out of PSD/NSR | <input type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b) |                                         |

MISCELLANEOUS:

- ☒ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

| Pollutant           | Actual (tpy) | Potential (tpy) |
|---------------------|--------------|-----------------|
| PM/PM <sub>10</sub> | 3777/668     | 5267/1163       |
| SO <sub>2</sub>     | 84,100       | 119,523         |
| NO <sub>x</sub>     | 47,099       | 61,925          |
| CO                  | 2083         | 2756            |
| VOC                 | 243          | 320             |
| LEAD                | 0.7          | 0.9             |
|                     |              |                 |
|                     |              |                 |

SOURCE PROCESS DESCRIPTION:

Tennessee Valley Authority operates three coal fired electric generating boilers. All three are equipped with selective catalytic reduction for NO<sub>x</sub> control. Units 1 and 2 are equipped with venturi type flue gas desulfurization scrubbers, and one is under construction on Unit 3 to control particulate matter and SO<sub>2</sub> emissions. The facility also includes coal handling equipment, limestone handling equipment, building heat boilers and heaters, and ash and gypsum disposal processes.